

REMARKS

I. The Claims

Claims 1-15 and 25-28 are pending. Claims 1 and 25 have been amended herein to recite that the pigmented solventborne paint pack of the present invention comprises a water-in-oil emulsion. Support for the subject matter of this amendment may be found throughout the specification including, for example, at page 3 of the application, among other pages.

II. The Claim Rejections

Claims 1-6, 8-15, and 25-28 have been rejected under 35 U.S.C. § 103(a) as being unpatentable over Schimmel et al. (United States Patent No. 5,585,427 A) in view of Benefiel et al. (United States Patent No. 3,639,147). Applicant acknowledges with appreciation the Examiner's indication that claim 7 contains allowable subject matter.

Turning to the rejection, the Examiner states that Schimmel teaches a composition in which a water-borne pigment dispersion, comprising pigment dispersed in water, is dispersed in a solution of a polymer in an organic solvent, wherein the polymer may be acrylic, polystyrene, acrylonitrile, polyester, epoxy, polyamide, aminoplast, or polyurethane. See Final Office Action at 4. The Examiner concedes that Schimmel does not teach a polymer having functional groups and hydrophilic groups as recited in the pending claims. *Id.* The Examiner, therefore, relies on Benefiel, which the Examiner contends discloses the use of a carboxy-hydroxy acrylic copolymer as a binder for a pigmented coating composition. *Id.* The Examiner concludes that it would have been obvious to one of ordinary skill in the art to select, as the acrylic resin, a carboxy-hydroxy resin, as suggested by Benefiel and would have been motivated to do so by the desire and expectation of greater control over pigment dispersion and orientation in the composition. *Id.*

Applicant respectfully traverses the Examiner's rejection of claims 1-6, 8-15, and 25-28. In particular, the rejection of these claims should be withdrawn because the Examiner has failed to establish a *prima facie* case of obviousness. *In re Piasecki*, 745 F.2d 1468, 1471, 223 USPQ 785, 787 (Fed. Cir. 1984) (the Examiner bears the initial burden of establishing a *prima facie* case of obviousness). Where, as here, the Examiner does not establish a *prima facie* case of obviousness, the applicant need not submit any evidence of nonobviousness in rebuttal, and the

case should proceed to allowance. *In re Rijckaert*, 9 F.3d 1531, 1352, 28 USPQ2d 1955 (Fed. Cir. 1993). A *prima facie* case of obviousness has not been established in this case for the following reasons.

First, contrary to the Examiner's contention, the combination of references relied upon does not teach or suggest all of the limitations of the pending claims. *In re Wilson*, 424 F.2d 1382, 1385, 165 USPQ 494, 496 (CCPA 1970) (to establish a *prima facie* case of obviousness, the prior art reference or combination of references must teach or suggest all the limitations of the claims). In particular, the combination of Schimmel and Benefiel does not teach a solventborne paint pack which can be made into a waterborne coating composition, which comprises a water-in-oil emulsion comprising a waterborne pigment dispersion which is dispersed in a solution of a polymer in an organic solvent, as recited in all of the pending claims.

Schimmel discloses a pigment dispersion comprising a pigment, a pigment dispersant which is a virtually non-functional (an acid value <1) copolymer, and optionally, a diluent and an auxiliary polymer which is preferably water-dispersable. See Schimmel at col. 7, line 31 to col. 9, line 58. Preferably, the diluent is an organic solvent. *Id.* at col. 8, lines 2 and 17. Schimmel discloses that this pigment dispersion may be included in a coating composition that includes a film-forming polymer and, optionally, a diluent, which may comprise an organic solvent, water, or a mixture of water and water-reducible organic solvents. *Id.* at col. 10, line 28 to col. 11, line 60. Preferably, the diluent comprises an aqueous composition, such as a mixture of water and water-reducible organic solvents. *Id.* at col. 10, lines 30-31, col. 11, line 50-52. Therefore, Schimmel is primarily directed to a typical waterborne coating composition that comprises a solventborne pigment dispersion that is dispersed in an aqueous medium.

The present invention, on the other hand, is directed to an entirely different composition. The present invention relates to a pigmented solventborne paint pack which can be made into a waterborne coating composition, and which comprises a water-in-oil emulsion. This water-in-oil emulsion comprises i) a solution in an organic solvent of polymer having functional groups and hydrophilic groups; and ii) a waterborne pigment dispersion comprising pigment dispersed in water in the presence of a pigment dispersant, wherein the aqueous pigment dispersion itself is in dispersion in solution i). Applicant has discovered that such a paint pack allows a crosslinker without hydrophilic groups to be used, while at the same time allowing waterborne two pack

coating compositions to be made having a volatile organic content ("VOC") significantly lower than waterborne two pack compositions made by conventional routes, such as by dissolving a polymer and pigment dispersion in an organic solvent to form a solventborne paint pack and then dispersing the paint pack in water to form a waterborne coating composition. See Application at 2-3.

The Examiner argues that Schimmel also teaches a waterborne pigment dispersion comprising a pigment dispersed in water in the presence of a pigment dispersant. See Final Office Action at 2-3. Even assuming that the Examiner is correct on this point, however, what Schimmel plainly fails to either disclose or suggest is a solventborne paint pack that can be made into a waterborne coating composition, which comprises a water-in-oil emulsion comprising the dispersion of such a waterborne pigment dispersion in a solution of a polymer in an organic solvent, as recited in all of the pending claims. Indeed, there is no discussion or suggestion of any water-in-oil emulsions in Schimmel at all. Moreover, the Examiner does not, and cannot, identify any teaching or suggestion in Schimmel of such a water-in-oil emulsion that comprises the combination of a waterborne pigment dispersion and a solution of polymer in an organic solvent. To the contrary, as indicated earlier, Schimmel merely discloses a pigment dispersion, which is preferably solventborne, that may be included in a coating composition, which is preferably waterborne.

Moreover, to the extent the Examiner believes that the coating composition disclosed in Schimmel, which may comprise a film-forming polymer and a diluent that may comprise an organic solvent, discloses or suggests all of the limitations of independent claims 1 and 25,¹ the Examiner does not, and cannot, identify any teaching or suggestion in Schimmel of the waterborne coating composition claimed in pending claim 28. This claim is directed to a waterborne coating composition comprising a dispersion in an aqueous medium of a solventborne paint pack, wherein the paint pack comprises a water-in-oil emulsion comprising i) a solution in an organic solvent of polymer having functional groups and hydrophilic groups; and ii) a waterborne pigment dispersion comprising pigment dispersed in water in the presence of a pigment dispersant, wherein the aqueous pigment dispersion itself is in dispersion in solution i).

¹ Applicant contends that such a conclusion would be incorrect for the reasons discussed earlier. As has been established, even if one were to select such a combination from Schimmel, that reference still lacks any disclosure or suggestion of the water-in-oil emulsion recited in all of the pending claims.

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As used in the pending application, the term "organic solvent" refers to "non-aqueous solvents which can be used to dissolve the polymer and which have little or no solubility in water." See Application at 4. Schimmel neither discloses nor suggests any waterborne coating composition that comprises a waterborne pigment dispersion that is dispersed in a solution comprising an organic solvent having little or no solubility in water. To the contrary, the waterborne coating compositions of Schimmel comprise a diluent that comprises water or a mixture of water and water-reducible organic solvents. See Schimmel at col. 10, line 28 to col. 11, line 60.

Benefiel overcomes none of the deficiencies of Schimmel. Benefiel discloses a process for producing a multi-layer coating composition by depositing a pigmented polymeric base film on a substrate and depositing, wet-on-wet, a transparent topcoat over the base film. See, e.g., Abstract. Benefiel neither teaches nor suggests any waterborne coating composition or any water-in-oil emulsion comprising a waterborne pigment dispersion dispersed in a solution of a polymer in an organic solvent, as recited in the pending claims. Indeed, even if one were combine the teaching of a carboxy-hydroxy acrylic polymer in Benefiel with the teachings of Schimmel, as proposed by the Examiner, such a combination would still fail to teach or suggest any solvent borne paint pack that can be made into a waterborne coating composition that comprises a water-in-oil emulsion comprising a waterborne pigment dispersion dispersed in a solution of a polymer in an organic solvent, as recited in all of the pending claims. Therefore, the Examiner has failed to establish a *prima facie* case of obviousness of the pending claims over Schimmel in view of Benefiel.

Second, even if the combination of references relied upon by the Examiner did teach or suggest all of the claim limitations, which it does not, the Examiner has nevertheless failed to identify any suggestion or incentive to combine the teachings of the prior art references in the manner proposed to produce the claimed invention. *In re Bond*, 910 F.2d 831, 834, 15 USPQ2d 1566 (Fed. Cir. 1990) ("obviousness cannot be established by combining the teachings of the prior art to produce the claimed invention, absent some teaching, suggestion or incentive supporting the combination") (emphasis added). As a result, the Examiner has failed to establish a *prima facie* case of obviousness for this reason as well.

The Examiner asserts that Benefiel discloses that a carboxy-hydroxy acrylic polymer may be used as a binder in both a pigmented base- and a transparent top-coating composition. See Office Action at 3. Even if the Examiner is correct on this point, however, the Examiner nevertheless fails to identify any teaching in Benefiel that would motivate one skilled in the art to include the carboxy-hydroxy acrylic polymer disclosed in Benefiel in the pigmented composition of Schimmel, let alone the solventborne paint packs or waterborne coating compositions of the pending claims. The purported motivation identified by the Examiner relates, not to the use of a thermosetting carboxy-hydroxy acrylic resin in any pigmented composition, but to its use in the transparent topcoat of a multi-layer coating. Indeed, Benefiel states:

A distinct advantage of this invention especially where **a thermosetting carboxy-hydroxy acrylic is applied over a base coat** of a thermosetting acrylic or an acrylic lacquer is the control of pigment dispersion and orientation in the film when sprayed.

See Benefiel at col. 6, lines 37-41 (emphasis added). A close reading of Benefiel reveals that this reference is directed to the use of a non-aqueous base film that utilizes the quick release of volatile organic solvents to provide a film which will not substantially intermix or interdissolve with the transparent topcoat. *Id.* at col. 1, lines 58-71; col. 2, lines 1-5; col. 6, line 65 to col. 7, line 29. Thus, the motivation identified by the Examiner is not related to the production of the claimed inventions at all, which are directed to (i) pigmented solventborne paint packs that may be used in a waterborne coating composition, and (ii) waterborne coating compositions that include pigmented solventborne paint packs, but, rather, that motivation is related to the use of a polymer having functional and hydrophilic groups as the binder in transparent top coat composition -- a motivation unrelated to either Schimmel or the pending claims. As a result, Benefiel's disclosure that the film-forming material of the basecoat may comprise a carboxy-hydroxy acrylic copolymer illustrates, at most, that one skilled in the art might have found it obvious to try the modification of Schimmel proposed by the Examiner. Establishing that a particular combination might have been obvious to try, however, is not sufficient to establish a *prima facie* case of obviousness. *In re Fine*, 837 F.2d 1071, 1075, 5 USPQ2d 1596, 1599 (Fed. Cir. 1988). Therefore, the Examiner has failed to establish a *prima facie* case of obviousness of the pending claims over Schimmel in view of Benefiel for this reason as well.

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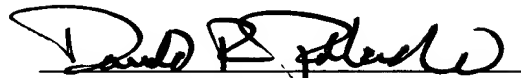
For the foregoing reasons, the Examiner has failed to establish a *prima facie* case of obviousness with respect to independent claims 1 and 25 as amended in view of Schimmel in combination with Benefiel. Because claims 2-15 and 26-28 all depend from claim 1 or 25, the rejection of these claims should be withdrawn for at least the same reasons as claims 1 and 25.

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CONCLUSION

Applicant respectfully requests entry of the foregoing amendment and allowance of the application at an early date.

Respectfully Submitted,

A handwritten signature in black ink, appearing to read "Donald R. Palladino", is written over a horizontal line.

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